

Doc Code: AP.PRE.REQ

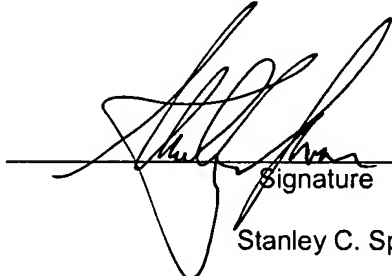


PTO/SB/33 (07-05)

Approved for use through xx/xx/200x. OMB 0651-00xx

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional)
		SCS-124-1166
	Application Number	Filed
	10/589,075	August 11, 2006
	First Named Inventor	
		SCOTT
	Art Unit	Examiner
	2886	M. LaPage
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p>		
<p>I am the</p> <p><input type="checkbox"/> Applicant/Inventor</p> <p><input type="checkbox"/> Assignee of record of the entire interest. See 37 C.F.R. § 3.71. Statement under 37 C.F.R. § 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> Attorney or agent of record      27,393 (Reg. No.)</p> <p><input type="checkbox"/> Attorney or agent acting under 37CFR 1.34. Registration number if acting under 37 C.F.R. § 1.34 _____</p> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.*</p> <p><input checked="" type="checkbox"/> *Total of 1 form/s are submitted.</p>		
<p> Signature Stanley C. Spooner</p> <p>_____ Typed or printed name</p> <p>703-816-4028 Requester's telephone number</p> <p>April 15, 2010 Date</p>		

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and selection option 2.



**STATEMENT OF ARGUMENTS IN SUPPORT OF  
PRE-APPEAL BRIEF REQUEST FOR REVIEW**

The following listing of clear errors in the Examiner's rejection and his failure to identify essential elements necessary for a *prima facie* basis of rejection is responsive to the fourth PTO Official Action mailed January 15, 2010 (Paper No. 20100112).

The Examiner rejects independent claims 1, 19 and 24 over Kanoh (U.S. Patent 4,643,576) in view of Devie (U.S. Pub. 2003/0112426) in view of Almogy (U.S. Pub. 2003/0058433). The Examiner is presumably now properly construing Applicants' means-plus-function recitations in claim 1 as well as the step-plus-function recitation in claim 19 and the detailed structure recitations in claim 24 (please note the previous Supporting Statement filed March 13, 2009). The multiple errors present in this rejection with respect to independent claims 1, 19 and 24 are addressed below and it is noted that the remaining claims all depend from one of these independent claims.

**Error #1. The Examiner fails to disclose Applicants' claimed "beamsplitting means for splitting the final beam into two or more beams and for directing said two or more beams to laterally displaced locations"**

The Examiner alleges that this claimed structure is shown in the Kanoh reference (see 4<sup>th</sup> non-final Official Action, page 3, 1<sup>st</sup> full paragraph). However, the cited portion of Kanoh at column 3, lines 30-51, does not contain any such teaching. As disclosed in Kanoh's Figure 1 and as stated clearly at column 3, lines 45-48, "on the photodetector 22, therefore, interference fringes are produced . . . ." An interference fringe is a consequence of two beams overlapping on the detector. Those of ordinary skill in the art will clearly understand that if the beams are directed "to laterally displaced locations" they do not overlap.

Moreover, those of ordinary skill in the field of optics will clearly understand that two overlapping beams which produce an interference fringe is different optically from the separated individual beams. Accordingly, "laterally displaced locations" is specifically recited claim language that distinguishes the Kanoh reference.

Additionally, the definition of “beamsplitter means” must be construed to cover the embodiments disclosed in Applicants’ specification. What is meant by “laterally displaced locations” is discussed in detail on page 11, lines 8-21, page 13, lines 2-6, page 14, lines 25-28 and elsewhere in the specification. If the “laterally displaced spots” (which presumably correspond to the claimed “laterally displaced locations” of the “two or more beams”) have spaces between them, there can be no overlapping of the beams, which comprise Kanoh’s interference fringes. Thus, Applicants’ “beamsplitting means” has to be construed to cover the “laterally displaced spots” disclosure in Applicants’ specification and Kanoh clearly has no “laterally displaced” beams or spots and therefore fails to teach this claimed subject matter.

The Examiner’s admission on page 4, 2<sup>nd</sup> full paragraph, that Kanoh and Devie “does not explicitly disclose where the beamsplitting means of said inspecting means comprises at least one of a diffraction grating and hologram.” This admission is very much appreciated because this is the corresponding structure in Applicants’ specification to which said “beamsplitting means” refers. The Examiner relies upon Almogy as purportedly disclosing the use of a diffraction grating. It should be noted that Almogy does not have anything to do with “two or more beams” or laterally displaced locations of the “two or more beams” on a detector as required by Applicants’ claims. Almogy simply splits one beam so as to shine on three separate detectors. Accordingly, he teaches away from the claimed detector means upon which two or more laterally displaced beams are directed. Importantly, Almogy does not disclose the “radiation means,” the “inspecting means” or the “at least one wavefront shaping means” as required by Applicants’ independent claims 1, 19 and 24.

In view of the above, even if Kanoh, Devie and Almogy are combined, the details of Applicants’ “beamsplitting means” is not present and therefore any rejection under 35 USC §103 fails.

**Error #2. The Examiner fails to demonstrate where the claimed “detector means for detecting radiation intensity of said two or more beams on the detector means” is disclosed in the cited prior art**

The Examiner admits that “Kanoh does no [sic] explicitly disclose a detector means (i.e. a CCD detector).” (See page 3, 3<sup>rd</sup> full paragraph of the Final Rejection). The Examiner suggests that the

Devie reference does contain this missing disclosure in Figure 3. However, the Examiner misapprehends the subject matter of Devie at Figure 3. Devie's Figure 3 discloses two completely separate point sources – one point source 40 for a plane wavefront and a second point source 52 for a spherical wavefront (described in Devie's paragraphs 65 and 66). Beams from these respective point sources are ultimately focused on two separate detectors 50 and 56. Applicants' claimed "detector means" detects radiation from a final beam which has been split into "said two or more beams." There is no disclosure in Devie of beams from one point source being split into two separate beams and then those two separate beams are detected on a single detector. There is simply no beamsplitting means disclosed in Devie for splitting a final beam into two or more beams and then directing those two or more beams to laterally displaced locations. While the Examiner may attempt to suggest that the microlens arrays 48 and 54 somehow create separate beams, they do not. The point sources 40 and 52 each generate a single beam and that single beam, after passing through the optical component, is reflected onto the microlens array. Two separate beams are not created, except for one by each point source. The microlenses tend to focus the single beam at varying degrees of focus onto the CCD plane 50 or 56.

The Examiner does not allege that Almogy teaches Applicants' claimed "detector means for detecting radiation of said two or more beams" which have been split from "the final beam" in the beamsplitter means, on the detector means. Should the Examiner believe this is disclosed in Almogy, he is respectfully requested to detail such disclosure.

In view of the above, Applicants' claimed "detector means" as disclosed in Applicants' specification is not disclosed in any of the Kanoh/Devie/Almogy reference combination and therefore any further rejection under 35 USC §103 is respectfully traversed.

**Error #3. Even if the Kanoh/Devie/Almogly combination disclosed Applicants' claimed structures, the Examiner fails to provide the required explicit "analysis" as to a rationale for picking and choosing elements from these different references and them combining them in the manner of Applicants' independent claims**

In its recent decision, the U.S. Supreme Court in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (April 2007), held that "[t]o facilitate review [of the Examiner's rationale for an obviousness rejection], this **analysis should be made explicit.**" (emphasis added) *Id.* at 1396. The Court went on to quote the Court of Appeals for the Federal Circuit's advice that "rejections on obviousness grounds **cannot be sustained by mere conclusory statements**" (emphasis added, *In re Kahn*, 78 USPQ2d 1329 (Fed. Cir. 2006)).

The Examiner fails to provide any reason or rationale as to why one of ordinary skill in the art would modify the Kanoh, Devie and Almogly combination to reach the combination of elements and interrelationship between elements recited in Applicants' independent claims 1, 19 and 24. The Examiner merely states that it would "have been obvious to one of ordinary skill in the art at the time the invention was made to modify Devie with a diffraction grating in order to provide the advantage of added versatility due to an additional optical component which can be used to provide beamsplitting capabilities." This is merely a conclusory statement by the Examiner saying that it would be obvious to modify Devie in the manner of Kanoh and Almogly and is insufficient basis for an obviousness rejection.

As the Supreme Court has said, mere conclusory statements are insufficient to support a *prima facie* case of obviousness.

**Error #4. The Examiner fails to appreciate that each of the three references would lead one of ordinary skill in the art away from Applicants' claimed combination and therefore rebuts any prima facie case of obviousness (even if one had been made)**

As noted above, the Kanoh reference discloses overlapping beams which, by definition, precludes "laterally displaced spots" required by Applicants' beamsplitter beams and "detector means."

Devie discloses no splitting of a beam into “two or more beams” and instead supplies one beam from one point source (either 40 or 52) and directs that beam to a single detector (50 or 56). Following the Devie teaching would preclude Applicants’ claimed embodiment of the “beamsplitting means” for splitting a beam into two or more beams and for directing those beams to laterally displaced locations. Accordingly, Devie’s teaching would preclude Applicants’ claimed combination of elements.

Similarly, Almogy teaches that a single beam is split by a diffraction grating into three displaced beams which utilize three separate detectors. The use of three separate detectors would preclude Applicants’ claimed detector means which has been split into “two or more beams” and then applies them to the detector.

Because each of the cited prior art references would lead one of ordinary skill in the art away from Applicants’ claimed invention, these adverse teachings rebut any *prima facie* case of obviousness made.

### **SUMMARY**

The above discloses in detail how and why the “beamsplitting means” and “detector means” as defined in Applicants’ specification are not shown in the Kanoh/Devie/Almogy combination of references. Without disclosure of both claimed elements in the combination, there is clearly no *prima facie* case of obviousness. Applicants have also noted that the Examiner has failed to meet his burden of providing the required explicit “analysis” of his rationale for combining elements. Finally, Applicants have noted that each one of the three cited references precludes Applicants’ claimed combination of elements and therefore rebuts any *prima facie* case of obviousness.

As a result of the above, there is simply no support for the rejection of Applicants' independent claims 1, 19 and 20 or claims dependent thereon under 35 USC §103. Applicants respectfully request that the Pre-Appeal Panel find that the application is allowed on the existing claims and prosecution on the merits should be closed.